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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/718,835	11/21/2003	Jay King	UTL 00198	1328

32968 7590 04/21/2008
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EXAMINER	
KURR, JASON RICHARD	

ART UNIT	PAPER NUMBER
2615	

MAIL DATE	DELIVERY MODE
04/21/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/718,835	KING, JAY	
	Examiner	Art Unit	
	JASON R. KURR	2615	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *06 March 2008*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,3-10,12,14 and 15* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,3-10,12,14 and 15* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on March 6, 2008 has been entered.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 3-5 and 7-8 are rejected under 35 U.S.C. 102(b) as being anticipated by Kurosawa et al (US 4,433,209).

With respect to claim 3, Kurosawa discloses an audio playback device comprising: a stereo headset driver (fig.4 "A1-A2") for amplifying a first (fig.4 "IN_L") and a second (fig.4 "IN_R") audio signal to a headset; a headset jack (fig.4 "J'") for contacting a headset plug (fig.2A,B) in communication with a headset, said headset jack in communication with output from said stereo headset driver; and a load (fig.4 "R8")

between said headset jack and a first audio output from said stereo headset driver for preventing a first audio output from contacting a ground (fig.4 "E") when a mono headset plug is inserted into the stereo headset driver of the audio playback device, the load configured to reduce current draw from a power supply corresponding to the playback device when a mono headset is plugged into a headset jack of the playback device (col.6 ln.14-34).

With respect to claim 4, Kurosawa discloses the audio playback device of claim 3 wherein said load comprises a resistance (fig.4 "R8") in series between a first audio output from said stereo headset driver and the ground.

With respect to claim 5, Kurosawa discloses the audio playback device of claim 3 further comprising a second load (fig.4 "R2") between said headset jack and a second audio output (fig.4 "IN_R") from said stereo headset driver.

With respect to claim 7, Kurosawa discloses the audio playback device of claim 5 wherein said second load comprises a resistance (fig.4 "R2") in series between a second audio output (fig.4 "IN_R") from said stereo headset driver (fig.4 "A1-A2") and said headset jack (fig.4 "J'").

With respect to claim 8, Kurosawa discloses a mobile communication device comprising: a stereo headset driver (fig.4 "A1-A2") for amplifying a first (fig.4 "IN_L") and a second audio signal (fig.4 "IN_R") to a headset; a headset jack (fig.4 "J'") for contacting a headset plug (fig.2A,B) in communication with a headset, said headset jack in communication with output from said stereo headset driver; and a load (fig.4 "R8") between said headset jack and a first audio output from said stereo headset driver for

preventing a first audio output from contacting a ground (fig.4 "E") when a mono headset plug is inserted into the stereo headset driver of mobile communication device, wherein the load is configured to reduce current draw from a power supply corresponding to the playback device when a mono headset is plugged into a headset jack of the playback device (col.6 ln.14-34).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1, 6, 9, 10, 12 and 14-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kurosawa et al (US 4,433,209).

With respect to claim 1, Kurosawa discloses an audio playback device interface (fig.4) for interface with an audio headset (col.1 ln.5-22), said interface comprising a load (fig.4 "R2") in series between an audio output of a stereo headset driver (fig.4 "IN_R", "A2") of an audio playback device and a ground (fig.4 "E"), wherein the load is configured to prevent the audio output from directly contacting a ground when a mono headset plug is inserted into the stereo headset driver of the audio playback device, the load configured to reduce current draw from a power supply corresponding to the playback device when a mono headset is plugged into a headset jack of the playback

device (col.6 ln.14-34), a headset driver (fig.4 "A1 A2") electrically coupled to the load, wherein the load resistance is at least equal to the minimum impedance that the headset driver is configured to drive; and a second load resistance (fig.4 "R8"), said second load in series between a second audio output of a stereo headset driver (fig.4 "IN_L", "A1") and a headset jack (fig.4 "J"") of an audio playback device.

Kurosawa does not disclose expressly wherein the second load is equal to said first load. At the time of the invention it would have been obvious to a person of ordinary skill in the art to make the loads of the right and left channels of Kurosawa equal. The motivation for doing so would have been to draw the same amount of current from the audio drivers A1 and A2, thus resulting in a balanced signal in each earphone for sound reproduction.

With respect to claim 6, Kurosawa discloses the audio playback device of claim 5 however does not disclose expressly wherein the resistance of said second load is equal to the resistance of said first load. At the time of the invention it would have been obvious to a person of ordinary skill in the art to make the loads of the right and left channels of Kurosawa equal. The motivation for doing so would have been to draw the same amount of current from the audio drivers A1 and A2, thus resulting in a balanced signal in each earphone for sound reproduction.

With respect to claim 9, Kurosawa discloses a method of making a stereo audio playback device compatible with stereo and mono headsets (col.1 ln.5-22) comprising: providing a headset driver (fig.4 "A1-A2") for the audio playback device for amplifying a first (fig.4 "IN_L") and a second (fig.4 "IN_R") audio signal to a headset; and placing a load

(fig.4 "R8") on a first audio output from the headset driver to prevent a first audio output from contacting a ground (fig.4 "E") on a headset plug (fig.2A,B "C_E") when a mono headset plug is inserted into the headset driver of the audio playback device, the load configured to reduce current draw from a power supply corresponding to the playback device when a mono headset is plugged into a headset jack of the playback device (col.6 ln.14-34); placing another load (fig.4 "R2") between a second audio output (fig.4 "IN_R") from the headset driver and a headset jack (fig.4 "J") of the audio playback device.

Kurosawa does not disclose expressly wherein the resistance of said second load is matched to the resistance of said first load. At the time of the invention it would have been obvious to a person of ordinary skill in the art to make the loads of the right and left channels of Kurosawa matched. The motivation for doing so would have been to draw the same amount of current from the audio drivers A1 and A2, thus resulting in a balanced signal in each earphone for sound reproduction.

With respect to claim 10, Kurosawa discloses the method of claim 9 wherein placing a load on a first audio output comprises placing a resistance (fig.4 "R8") in series between a first audio output from the stereo headset driver (fig.4 "A1-A2") and a ground (fig.4 "E").

With respect to claim 12, Kurosawa discloses the method of claim 11 wherein placing a load on a second audio output comprises placing a resistance (fig.4 "R2") in series between a second audio output from the stereo headset driver and a headset jack.

With respect to claims 14 and 15, Kurosawa discloses the device and method of claims 4 and 10 respectively, however does not disclose expressly wherein the said resistance is equal to or greater than a minimum impedance or resistance which said headset driver is configured to drive. Official Notice is taken that headphones are well known to have a relatively low impedance. Low impedance headsets may vary from as low as 6 ohms up to about 150 ohms. At the time of the invention it would have been obvious to a person of ordinary skill in the art to use low impedance headphones because headphones in this impedance range may be directly plugged into a headphone jack routinely found on recording and playback equipment. Low impedance headphones are commonly used in portable media devices. It is also well known that voltage dividers such as the one formed by R7 and R2 of Kurosawa in low voltage circuits use resistors with impedances in the kilo-ohm range. A combination of a low impedance headphone and the circuit of Kurosawa would ultimately result in the resistances R2 or R8 being greater than the minimum impedance or resistance that the drivers are configured to drive.

Response to Arguments

Applicant's arguments filed March 3, 2008 have been fully considered but they are not persuasive.

With respect to the Applicant's arguments regarding the presently amended independent claims, the Applicant argues that the limitation "the load being configured to reduce current draw from a power supply corresponding to the playback device when

a mono headset is plugged into a headset jack of the playback device", is neither suggested nor taught by Kurosawa. The Applicant continues that Kurosawa implements the load R2 to divide the voltage source +B in order to decide the state of conductivity or non-conductivity state of the transistor Q1. The Examiner agrees that the purpose of the load resistor R2 of Kurosawa is to function as a voltage divider along with resistor R7, in the ON/OFF functioning of transistor Q1 which controls the mixing of the right (IN_R) and left (IN_L) channels. However, this drop in potential at point "P" would result in a reduction of current seen at the load, thus anticipating the present claim language. The Applicant continues that the purpose of Kurosawa's load R2 is not for protecting the playback device from being damaged by excessive electrical current. The Examiner agrees, however such a limitation does not appear in the present claims of the Application.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JASON R. KURR whose telephone number is (571)272-0552. The examiner can normally be reached on M-F 10:00am to 6:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vivian Chin can be reached on (571) 273-7848. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Jason R Kurr/
Examiner, Art Unit 2615

/Vivian Chin/
Supervisory Patent Examiner, Art Unit 2615